

The DNR tests waters throughout Iowa to make sure they are meeting state water quality standards. Those standards are in place to protect drinking water, aquatic life and recreational uses, like swimming. When a stream or lake doesn't meet those standards, the stream or lake is placed on the state's impaired waters list. The DNR then creates a plan that outlines ways Iowans can help improve the water quality in their community's lakes and streams.

DNR needs your input

Every Iowan needs the help of their fellow citizens and watershed groups to improve water quality in their community. If you or your group would like to meet with a DNR staff member to discuss water quality, please contact William Graham at (515) 281-5917 or William.Graham@dnr.iowa.gov

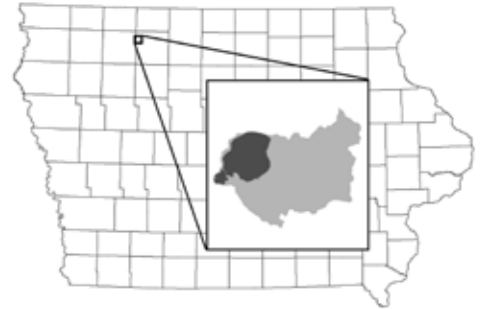


For more information on water quality improvement plans, please visit <http://watershed.iowadnr.gov>

Lost Island Lake

Pollutant: *Algae and turbidity*

Pollution Sources: *Internal lake resuspension, row crop agriculture*



What's wrong with Lost Island Lake?

Excessive algae blooms and poor water clarity keep the lake in Palo Alto and Clay counties from meeting its state-designated standards.

These algae blooms and cloudy water make the lake less appealing, both visually and for recreational uses like swimming.

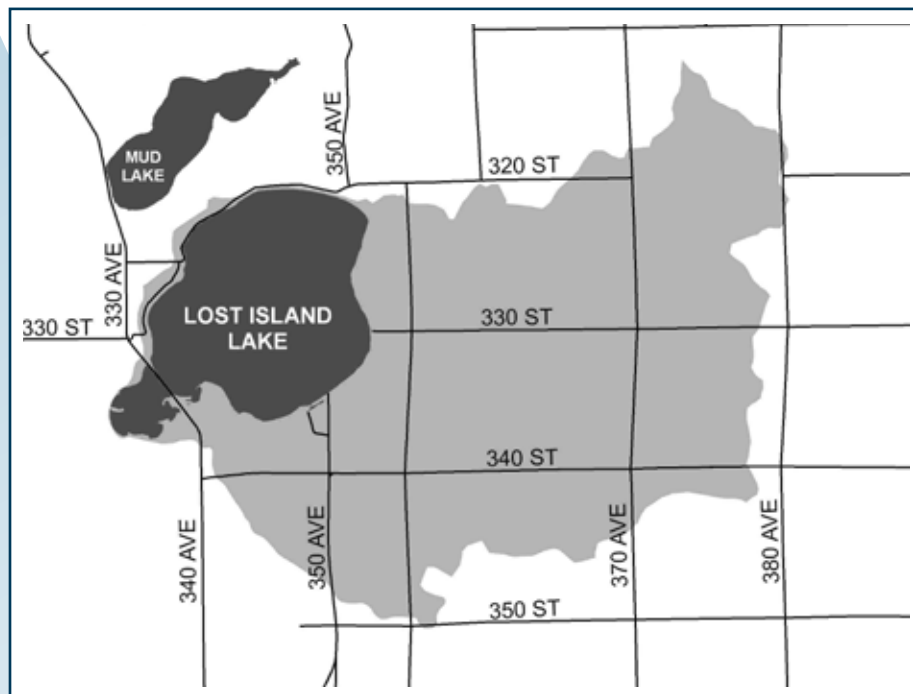
However, the algae blooms and cloudy water do not pose a specific human health threat.

What is causing the problem?

All pollution in the Lost Island Lake watershed (the area of land that drains into the lake) comes from nonpoint sources, or sources that are not easily traced back to a specific "point," like a wastewater treatment or industrial plant.

In the Lost Island Lake watershed, nonpoint sources include resuspension of phosphorus and sediment in the lake by carp, and erosion from row crop and pasture land.

To reduce the nutrients reaching the lake, changes in managing carp and land



The map to the left shows the Lost Island Lake watershed shaded in gray. A watershed is an area of land that drains into a body of water. In this case, all land shaded in gray drains into Lost Island Lake.

use, as well as changes in the lake, will be needed. It will take time to plan changes and to see the effects.

What can be done to improve Lost Island Lake?

The ultimate goal is to improve water quality and remove the lake from the state's impaired waters list. To do that, the number and frequency of algae blooms needs to be reduced and water clarity needs to improve.

Using research results and with the help of the public, the DNR has developed a water quality improvement plan (also known as a TMDL, or total maximum daily load).

The plan will help reduce the amount of pollutants reaching Lost Island Lake. A water quality improvement plan suggests to local communities how they can improve their lake's water quality.

While the DNR has done the background research and can provide some technical and funding assistance, it is

ultimately up to the watershed residents and stakeholders to take action and improve the lake's water quality.

Goals for Lost Island Lake

The DNR has identified goals that must be met to make a significant improvement in water quality at Lost Island Lake.

Phosphorus must be reduced by at least 55 percent. Reducing phosphorus will result in less algae in the lake.

Water clarity, or how far you can see down in the lake, is measured by a Secchi Disk reading. In Lost Island Lake, the Secchi depth must increase from 1.5 feet to 3.3 feet.

Installing conservation practices in the watershed and reducing resuspension of phosphorus and sediment by carp in the lake can help us to achieve these goals.

The DNR suggests the following management practices for Lost Island Lake and its watershed:

Control internal nutrient loading in the lake:

- Manage rough fish such as carp.
- Encourage aquatic plants in shallow areas.

Land management:

- Improve nutrient management, including incorporation of nutrients into the soil.

Sources of phosphorus to Lost Island Lake

